Original Transcript

EPA PUBLIC MEETING

GULFCO MARINE MAINTENANCE SUPERFUND SITE

FREEPORT, BRAZORIA COUNTY, TEXAS

AUGUST 4, 2011
6:35 p.m.

VELASCO COMMUNITY HOUSE

RHONDA RUSSO, CSR

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MR. SANTOS: Good evening. It guess we're ready to start the public meeting for the Gulf Superfund site. We appreciate all of you that are attending this meeting and taking time to be here. My name is Carlos Santos. I'm chief of Arkansas/Texas Superfund section.

We have Gary Miller, the RPM for the site. He will be making a short presentation on the site; and then, afterwards we will take comments and questions. We will have a court reporter that will take all the comments and questions that, you know, are made at this public meeting; and we'll go to the questions and comments. But then we'll make a formal response in what we call a response summary. That is part of the record decision for the site.

We want to recognize a few other people that are here in attendance. From the Texas Commission of Environmental, we have Lou Vasquez, Michael Montgomery. Also from the Texas Department of Health or Texas Services, we have Dr. Carrie Bradford, Tina Walker and David Rivera.

Also from the City, we have Jeff Pynes, city manager. Thank you.

Do we have other representatives from the city here with us?

MR. PYNES: We have Councilwoman Nicole

Mireles. She's our mayor pro tem as well.

MR. SANTOS: Welcome.

MR. PYNES: And our fire chief and emergency manager coordinator and EMS director and my assistants, also.

MR. SANTOS: Okay. Well, thank you all for being here. We appreciate you being here and participating in this public meeting. So, we'll get started. I guess Gary will make a short presentation, and then we'll get to the questions and answers.

This public meeting is mainly to hear your comments, concerns, recommendations, questions. So, that's really the purpose of this public meeting, to get input from the community; but Gary will make a short presentation on the site.

MR. MILLER: Thank you. Hello, everybody. I appreciate you coming out tonight and showing interest in the site. This is the Gulfco Superfund Site, Gulfco Marine Maintenance, and we're going to talk about the investigations that were done out there, what the results were, what the examination is and what the risks that were identified. After that we're going to talk about what the clean-up objectives are and then the alternatives for cleaning up the site.

Here's a map of the site, and it's

located -- Gulfco is located -- there's the site and it's right on the north side of the intercostal waterway. And the City of Freeport is over in this area. Here's Surfside. Of course, the Gulf of Mexico is down here.

Here is a more close-up map of the site, and it shows a couple of areas I wanted to point out to you folks.

This area right down here is a former storage tank area, and those tanks were removed this year. And so, I'll talk a little bit more about that later. And then, this area up here is a former surface impoundment area. Those surface impoundments were used for storage to wash waters from the barge cleaning operation. They were closed approximately 30 years ago in 1982, but we'll be talking about that. That will be part of the remedy. We will get into later.

Okay. As far as the site history, the address is 906 Marlin Avenue in Freeport. The site covers about 40 acres. The main operation at the site was barge cleaning and repairs and that ran for almost 30 years from '71 to almost 2000. The barges contained a large number of chemicals -- oils, caustics, chlorinated solvents, a large number of different things. And as I said before, the washwaters from cleaning those barges are stored in those impoundments north of Marlin Avenue.

All right. Here's some of the history of it. August '82, the former impoundments were closed under state-approved plan. In 2003, the Gulfco site was add to the superfund list. That's a national priorities list, NPL. In 2005 EPA issued an order to the potentially responsible parties to require an investigation and feasibility study.

Now, we're -- that investigation has been completed and has the feasibility study. So, what we're going to talk about tonight is the results from that and proposed remedy that came out of the feasibility study.

Okay. This is just a quick slide to show the superfund process. First of all, the site is listed, which was done in 2003. But the first thing is the remedial investigation, and that's been done. Following the investigation, risk assessments are done; and then, a feasibility study is done to identify what the clean-up considerations might be.

Well, following that, a proposed plan is developed which summarizes all of that previous information. It's put out for public comment, and that's the purpose of this meeting right here is to receive comment on that proposed plan. And then, at the end of the comment period, we'll consider those public comments

along with all the other information we have from the site and we'll issue a record of decision and that's where the final clean-up remedy is selected for the site.

All right. So, we'll start off with the remedial investigation. There were a lot of samples collected at the site -- soils, groundwater, surface water, sediments. There's also some fish sampling. Just in general -- I'll get more into the contaminates later, but there are a large number. Some of the main ones were the chlorinated solvents. That's trichloroethylene -- Tetrachloroethylene, which is a dry cleaning fluid, and trichloroethylene.

All right. Now, I'm going to just briefly talk about the sampling was done; and by the way, this poster over here shows the site and all the samples that were collected. So, there were a lot of samples collected.

But anyway, for the soil and sediment, over 300 samples were collected. They found PCBs, metals, various things in some of the samples. In some of the samples there were no detects. Contamination reaches down to about 5 feet.

And one other thing I wanted to mention, over on the eastern end of the site, there were

additional samples collected from zero to one inch. I know one of the concerns of the community was the windblown dust. So, that was the purpose of those shallow samples, to see if there's anything in that shallow soil that maybe could be picked up.

Okay. Here's Marlin Avenue. Here's the intercostal waterway, and this the southern part of the site that covers about 20 acres. It's really hard to see; but if y'all can kind of see all these black dots, what those are, those are all the sample locations. So, there was a pretty fair coverage there. Those samples were taken in the top 6 inches between 1 and 2 feet and also in some areas between 4 and 5 feet. So, kind of get the spread of what is there.

All right. This is the area between Bridge Harbor which is right over here, and here's the Gulf Coast side over here. So, these were two tracts in here that were sampled. These samples in this area went down to 2 feet, but most of these samples over here were in the top 1 inch looking for that windblown dust. And what we did is we looked over here on the side at the source areas like there are some sandblasting areas and the shallow soil over here and the main thing we found there was lead. So, we came over here; and we looked for lead. And what we found out is most of the levels were

very low, like, for instance, these samples over here on this side next to Bridge Harbor were all less than 20. And just to kind of put that in perspective, our spring level and clean up level is somewhere between four and 500. Typically we don't clean up a site, a residential site, if it's less than 500. So, none of these samples were above 500. Most were very much lower. So, that's just kind of what we found there.

Okay. This is the northern area. Here's Marlin Avenue and this is another 20 acres north Marlin. Most of this area is wetlands. There's the former impoundments. Again, these black dots are really hard to see; but those were the sample locations. There are some outside of the Gulfco property, some out here and some out here as well. There are a number scattered throughout this area.

This is a -- actually it's a brackish pond. It's about 4 feet deep. It's called a freshwater pond, but basically it is brackish.

Okay. Next I'm going to say a little bit about the groundwater investigations, and this is putting in the groundwater monitoring well. This looks like it's in the marsh north of Marlin Avenue.

So, on the groundwater there were 30 monitoring wells put in and 13 piezometers. Piezometers

were used to measure the water level so we could get the directional flow.

But anyway, what was found, there were three water bearing zones at least in the shallow part of it. Zone A was about 10 feet below the ground surface. The next one, Zone B, was about 19 feet down and the last one, Zone C, was 73 feet down. Now, these first two were silt and sand; but Zone C is really just kind of a crushed shell layer. It's only about one foot thick.

The one thing I wanted to point out, there's a thick low permeability clay layer between Zones B and C. So, what that would do, that thick clay layer in between here would prevent any deeper migration. I will just tell you right now there is contamination in Zone A. That is the most expensive contamination. There is a much smaller area of contamination in Zone B.

The other thing I wanted to say is all of three of these water zones are salt water. Their total dissolved solvents is greater than 30,000. So, it's not part of the water by any means.

All right. Most of the contaminants found were chlorinated solvents again and benzene. One of the concerns was because of the -- a lot of these materials are heavy. They are dense, and they will sink

through groundwater. So, one of the concerns is the non-aqueous phase liquid, or NAPL, might sink through the bottom of those zones and create a continuing source. So, anyway, in the course there were some I'm going to call them end zones of DNAPL, or dense NAPL, discovered at the bottom of Zones A and B. One thing that was encouraging is that in all those water wells, there was no NAPL observed. Now, some of these wells did have high concentration of contaminants in the water samples; but there was no free phase of these chemicals in those wells. So, what that means is at least in those areas there, it wasn't mobile enough to go in those wells. That's a good sign.

Okay. This map -- again, I apologize is hard to see but all these dots over here show all groundwater monitoring wells that are put in around the site and those three zones. Most of the wells were concentrated up there in the northern area because that's where the ground water plumes were found. The plumes did come from these former impoundments.

So, now, this map shows the area of contamination. This is the groundwater plume and Zone A. There is a small -- much smaller area in Zone B that's within this area. But this is -- this is what we're looking at. It's all north of Marlin Avenue. And

the other thing I wanted to say is these impoundments were put in there almost 40 years ago, and they were closed almost 30 years ago. So, this area is -- that's all the migration that has happened over the last 30 to 40 years.

All right. This slide shows the groundwater surface in the A zone, and the thing I wanted to pound out with this is groundwater moves. And what this is telling us is right here there's a groundwater divide, a high point in the groundwater. And north of this, it's flowing up to the north or to the west. And then south of that, it's flowing to the south towards the intercostal waterway. Now, the data for this was in December of 2007; and the thing about these groundwater flow directions, they do change.

Here's the same area six months later, and this was during a dry spell. What I wanted to point out here is before if you notice the groundwater is flowing to the intercostal. Here it's flowing out of the intercostal to the north. So, the main thing there is the concerns of that contaminant plume that we saw several slides back. So, to the extent that the groundwater is flowing to the intercostal, that's a concern because we don't want that plume to get to the intercostal. This type of stuff is helping us. It may

be one of the reasons why the plume hasn't moved any farther than it has, because at times the flow is reversed.

Okay. There are another -- other investigations that were done, sediments from around the intercostal waterway of the surface water. The other thing I'll be talking about here in just a little bit is the fish and crab investigation. There were 33 samples collected of red fish, specks, flounders and blue crabs and around the site within the barge slips; and basically we didn't find anything, very low levels. And before I get into that, I did want to say, the ecological investigation; and what that consisted of is 25 toxicity tests. And I will get into that in a little bit. Basically that's where we take an area that we think has some contamination in it, and we put either worms or small crustaceans in there and see how they do. So, that's what those toxicity tests were.

This is a picture of -- it's a gill net of collecting the fish samples out in the intercostal waterway.

And this is a picture of some of the fish samples. Looks these are mostly flounders. There's a red fish. I'm not sure what that guy is over there.

Okay. So, anyway what we do with all

this: We get all this information, and we put a risk assessments together. Now, in the case of the fish sampling, the Texas Health Department also did an assessment of the fish and crab data and conclusion from that is they don't -- didn't expect to see any health effects associated with contaminants in those fish near the Gulf Coast side.

That's something else I should also point out. There are other advisories and bans. For instance, on shellfish, I believe there's a ban in the area, I think, on mackerel. There's an advisory to mercury, and that's spread throughout the whole Gulf Coast. So, anyway that's -- that was the results of the fish testing.

As far as the human population, we looked at a lot of different scenarios -- construction workers, trespassers, workers on the site -- to consider if there's any risk from the chemicals at the site; and the only thing that was found is if you remember that groundwater plume, the chemicals do migrate and vaporize out of that groundwater and rise to the surface. So, while there's no current risk from that, if there were a building to be constructed, those vapors would concentrate in that building. And there is a risk if that were done, if some building were built over that

groundwater plume. But as far as the soils and the sediments in the groundwater, there was no risk.

Now, I should point out in the groundwater, there were very high levels; but since it's not potable. It's salt water. There's no pathway. Nobody is going to be drinking it.

Okay. So, no other unacceptable risks other than that vapor intrusion concern.

Okay. This is just more information about the ecological risk assessments. And just basically summarizing that, what we do is we do a screening level risk assessment based on the soil and sediment and water data. We did identify some areas that were of concern. So, the next step is to take those areas and do these toxicity tests; and what we found from the toxicity tests is there were no difference between the background levels. So, the results of that is there was no impact from the site level contaminants. So, as a result, there's no issue with the environment, just the human elements.

Okay. We did do -- I should point out that all this work has been done by the responsible parties under that order. So, under EPA and TWCEP oversight. So, they were the ones collecting all the samples and doing all this work. So, anyway here's a

picture of a tank farm. This shows what it looked like before the work started which, I believe, was November of last year. The tanks contained a number of hazardous substances that were unloaded from the barges. They have been there ever since the barge operation shut down.

But anyway, those were benzene, chloroform, TCE, a lot of different other things. The removal started in November of 2010; and what that consisted of is the tank contents were removed, disposed of off-site, hazardous waste disposal facilities. The tanks were decontaminated, demolished and removed. There was also some debris in there. That was also taken out and then area monitoring was done. We like to be sure there wasn't any vapors coming off of those tanks.

So, here's a picture of that. That's the hydraulic shears that's ripping off one of the tanks to get inside to decontaminate it. One thing we found is after the tanks were gone, there was soil below the tanks; and there was contamination in that soil to a depth of about 6 feet. So, anyway, that soil was removed. Samples were taken to confirm what the remaining contaminants were. It was acceptable. So, it was back filled with clean dirt. The -- there was a concrete berm around the tanks. So, that was pressure washed and decontaminated. And then, finally the walls

of the berms were breached. So, it won't continue to collect rainwater. As a result of that, over 800,000 pounds of hazardous substances were removed in 90,000 gallons of water. That's what was in those tanks.

Anyway all that work was completed for this year. And so, here's a follow-up picture. There was some roll-off containers. At this point they still had some waste in them, but they were subsequently shipped off site. All the tanks are gone.

So, what that brings us to is what about this remedial action? What were their objectives based on all that information? Well, one thing we want to do is we're concerned about that groundwater plume. We don't want it to move. So, we want to confirm that that plume is stable. We want to prevent any future indoor exposures from any building that may be built over that groundwater plume. One thing, the land is currently zoned as commercial and industrial. One side, the side next to the intercostal is waterfront, heavy water front and this the side north of Marlin is heavy industrial. So, anyway, all the risk assessments were based on using those scenarios. So, we want to prevent any other use than that.

Also, prevent groundwater use. Now, that groundwater is fine. There was some concern if some

industrial operation came in there and should pump that water for some reason, it may affect the plume stability. So, we didn't want anybody pumping any of that groundwater.

And then, finally the former impoundments, there was some sludge that was left in there, about 100 feet of sludge when they were closed. So, there was some concern about that. Now, that's currently capped. It's under 3 feet of clay, and part of that clay needs to be fixed. But anyway, we do -- it's part of the objective. We do want to prevent exposure to that residual material, anybody that may be on the site.

Okay. So, as a part of that, there were three remedial action alternatives worked out; and that's included in the feasibility study. The first one, Alternative 1, is a no action alternative. We do that for all the sites, and it just says what if we don't do anything? What will happen? Of course, we found out that's just not acceptable. It won't meet the objectives.

So, here's all Alternative 2. Groundwater controls and monitoring. These are a summary of the components for that. Basically there are restrictive covenants in place that restrict the use of the property and required mitigation for any buildings

that should be built over that plume, but they need to be modified a little bit. The contaminants need to be identified and the location. So, that needs to be done.

Also, as a part, that includes the existing cap. Well, that existing cap does need to be maintained. So, there needs to be an operation maintenance plan to inspect and repair that thing as needed. Of course, the annual groundwater monitoring so we know what that plume is doing; and if it -- if we do find that it moves, we can take some additional action. Here's the operation and maintenance plan including the groundwater monitoring; and one thing we do on superfund sites where contamination is left on site, we do five-year reviews. Once every five years we'll go back and look at the site and look at all the data and analyze it and assess it and make sure it's still protective and if it's not, we will see what extract needs to be done.

All right. Alternative 3 that was also included in the feasibility study was groundwater containment. What this is, we said, "Okay. We're saying that that plume hadn't moved very far in the 30 to 40 years. What if it does move or what if it continues to move or whatever?"

So, this alternative is similar to the last one; but it includes some extra things. That's

groundwater extraction wells. Basically pumping wells so we can pump out the plume and keep it from moving and shrink it. And then, of course, whenever you pump it, then you're going to have to treat and discharge it. So, you have to treat it to meet the discharge requirements. So, that would be the treatment plan. The rest of these other things are exactly the same as the last alternative, Alternative 2.

All right. So, here are the costs. First, Alternative 1, no action, zero cost. Alternative 2, just the monitoring groundwater controls, a little over $200,000. And this is presently the most likely alternative. Alternative 3, the groundwater containment, it's going to be a lot more because of the treatment plan and operations. That was 4.7 million.

All right. And superfund, we have these nine evaluation criteria that we look at, at these alternatives. The main thing is the alternative has to be protected. It's got to comply with the laws and standards that are relevant to whatever work is being done. Then there's some other criterias of balancing criteria, modifying criteria; but basically we look to see if it's effective in the long term, if it's implementable, what the cost is and some other things. But also, it's important for the state acceptance and

community. So, that's part of the reason why we're doing this.

All right. So, we are recommending Alternative 2 is the preferred alternative. Why are we doing that? As far as long-term effectiveness, it looks like it's got the greater effectiveness because he don't have to operate a plant; and anytime you are operating a plant you are going to have downtime and treatment and all that kind of stuff. Short-term effectiveness basically because there's very little construction, or actually no construction, that has to be done as compared to Alternative 3, which, you know, the plant would be built.

Same thing on implementability, and, of course, the cost. This cost is about 1/20th of Alternative 3. Now, I also need to point out this is kind of predicated on the fact that the plume hasn't moved very far. If we should come out at some point in the future and we find the plume is moving, then all bets are off; and we'll have to do something more aggressive to keep it out of the water. That's what we're thinking of right now.

Okay. So, just here's where we are at right now. We're in the public comment period, and that ends August 22. And we will -- we appreciate any

comments that we get from y'all and we'll consider those and respond to them and make our decision. But the final clean-up plan will be selected and the recommended decision; and then, we expect the issue to arrive sometime in September, or hopefully before the end of September or Carlos will shoot me. That's it. Any questions?

MR. PYNES: I have a couple. Looking at the different options, if -- you can take Option 2. So, basically what you're going to be creating is a dead zone that can't be developed, correct? Because you say you can't build a structure on it because you would have indoor contaminants for human health.

MR. MILLER: No, you could build a structure; but it would have to be mitigated. Then there's a lot of technology for mitigating to make the improvements like HVAC, suspend the vents in the underslab. So, it has to be mitigated. It's not necessarily that it can't be constructed.

MR. PYNES: In my perspective, it seems like Option 2 is the path of least resistance instead of holding the people accountable that did it and put it back the way they got it. So, on Option No. 3, although it's more money, they are going to be responsible for cleaning it up. Wouldn't it preserve the land and the

subsurface back to its original quality.

MR. MILLER: It would and, you know, the reasons we're --

MR. PYNES: So, really you have, in effect, of affecting adjacent property owners if you only do it halfway instead of doing it the right way. And you are just prolonging something that most likely is going to be a problem in the future.

MR. CASTILLE: Yeah, who decided Plan 2?

MR. MILLER: That was basically me.

MR. SANTOS: It hasn't been decided. It's up for referral.

MR. MILLER: It's being proposed in the recommendation.

MR. SANTOS: The decision gets made when the regular decision is signed and then --

MR. CASTILLE: We're looking at a long-term deal? It has to be monitored forever?

MR. MILLER: Right.

MR. SANTOS: As far as clean-up, I don't know if you can ever return it to original conditions. One of the things we look at with these alternatives is that is if they're protected, which we believe Alternative 2 is, and it also, you know, cost and all those things get -- go into consideration. As Gary

indicated, there's a lot of things here that are evaluated on different alternatives. We look at all of those things as a preferred alternative is put forward to the community. So, it's indicated the first two protect the human health and environment. We believe this remedy does that. The tanks and those areas have been addressed. There's a cap over the material that, you know, there will be exposure. The ground water is not drinking water. The zone where the -- you know, it's two controls are going to be required. It's -- I -- relative to the size. It's a small area. So, you can develop or build anywhere, even on top of that area. So, there is, you know, a lot of area that can be developed if someone wants to do that.

MR. PYNES: But realistically if I got a pile of money and I want to develop it, do I want to develop it next to something that could be a problem and would affect my development?

MR. SANTOS: If there was no other land available, it might be worth it. I mean --

MR. PYNES: Option 2 is creating a dead zone.

MR. SANTOS: We have many other sites and many other areas where, you know, vapor mitigation systems are in place to prevent vapors going inside

buildings and house and things like that. So, those systems do work; and they are being used.

MR. MILLER: One thing I'd like to point out and get back to is that DNAPL presence, that free-phase liquid that's down there in the bottom of those deeper zones. We could control the plume. We could keep it from moving, and we could actually shrink it. But what is going to happen is that the DNAPL is going to continue to dissolve and our experience has been at the DNAPL sites, it's very hard to clean up those plumes. So, there would be an area of contamination for probably a long time.

Yes, it would probably be smaller; but with that DNAPL continuing to dissolve in the ground water, that's frankly one of the concerns about Alternative 2 because it is dissolving right now. And so, why has it stopped or why hasn't moved any farther than it has? Well, it's a tight zone. It's got very little permeability. It's not going to move very fast. Another thing is that the groundwater flow changes. You know, sometimes when it's dry, the actual water backs up. So, that tends to push the plume back.

And I didn't mention this before but during the investigation, there is also some biological testing done to see if there's any natural biological

degradation; and it looks like there is. So, that may be another thing that is helping us to keep that plume from moving. You know, we could shrink it; but whether we could actually totally remove it, it would be very tough.

MR. PYNES: Under Alternative 3, if you did that, would it require any less mitigation for any future development?

MR. MILLER: There would have to be vapor intrusion mitigation.

MR. PYNES: Even with Option 3?

MR. MILLER: Yes, even with Option 3.

MR. SANTOS: Because D-NAPL materials, they can be found. They move slowly, and it would take a lot of pumping over many years. And, you know, even this vapor potential, it's a potential. And we look at very worst case scenario, we don't know for sure that would be a problem if a building is located on top of this plume, you know, to begin with. But we look at a worst case scenario and that's why we're mentioning it as a potential. We don't know for sure if that's what actually happened.

MR. PYNES: I don't want to speak for Councilwoman Mireles. I think from my perspective and maybe some property there in that area, we would rather the responsible party put it back the way they found it

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and before it was contaminated. Really the money option is not the state or the EPA. It's the person responsible. So, that shouldn't be the ultimate decision from my perspective. It should be like if you made a mistake, it's your responsibility to fix it and not push it down the line for somebody else to deal with it.

MR. SANTOS: Well, when we look at all the Superfund sites, whether it's Federally-funded or procurement funded, we don't really consider that. We consider this protection on all of these sites. So, whether -- even if the government is not paying for it, we have to treat a site equally and look at it from the standpoint of whether it's protecting the human health and environment. That's the main criteria. Cost or who pays for it, that's, you know, down the bottom of the list.

So, we don't -- just because a site is a PRP site, we don't say, well, we don't care because they're paying for it. Well, that's not how we look at sites. We look at the -- the main thing is for the site to be protected and we believe that that is the case on that for Alternative No. 2.

MR. PYNES: Alternative No. 2 and the five-year testing, who is responsible for that, the responsible parties, for the testing themselves.

MR. SANTOS: No. The EPA makes the final determination. They gather the data. EPA puts together the report and makes the determination whether it's protected or not. So, be -- they may be gathering the data information; but they don't make the decision or the selection of the remedy for the site. They work together with the state. So, they may be doing the work or gathering information; but the EPA with the state makes those decisions. And again, the five-year review is to fully evaluate the remedy. If at the five-year review, something is happening that we didn't anticipate, we can change it. We can do it where we basically start it all over and select some other remedy that would address whatever the issue is.

MR. PYNES: How long has it been there?

MR. MILLER: They started in '71, I think.

MR. PYNES: That's kind of my point. It's been there since '71. I just think it should be cleaned up personally. I mean, I love the environment. I love the outdoors. I love the coastal environment that our community has to offer; but when you throw that in the mix, it doesn't just have an effect on the site, it's going to have an effect on anybody that learns about the site and they know Freeport has got these things or whatever it is. I think overall it's a detractor for the

environment that we have.

MR. SANTOS: We'll consider your comments and your recommendations along with, you know, others that we receive and, you know, whatever. Also, you know, people can also mail us. If they don't want to speak up here at the meeting, they can send you us comments, you know, up to the August 22nd and all of those things will be considered together and then we'll present -- and if you need more information, you know, once the decision is made on what -- why we chose whatever alternative we selected as the record decision.

MR. PYNES: Is there another meeting that will be in Austin somewhere that will present the final decision?

MR. SANTOS: No, we don't have another meeting after this.

MR. PYNES: Okay.

MR. SANTOS: And the decision or selection will be placed -- I believe the notice is paid for or printed in the newspaper that announces the final decision that's made.

MR. PYNES: Okay.

MR. CASTILLE: Gary, let me ask you a question: I don't notice any newspaper here. Did y'all get ahold of them, by any chance?

MR. MILLER: There was two newspaper ads that were put out about this meeting, and there was also a press release that was sent around to the media.

MR. CASTILLE: I'm surprised they're not here. This has been -- this has been headlines.

MR. PYNES: Well, they might not want to be here because this is something positive to resolve something.

MR. CASTILLE: Along with some other issues. But years ago they did headlines on this, you know; and now you don't see anything. A Superfund Site is a major issue, you know, around the country; and we -- let's say at first we got all the PR, if you want to call it PR, on this project, heavy, heavy, you know, headlines. And now, lately we hear nothing. We don't even have the residents here from Bridge Harbor.

MR. PYNES: We sent out a message to everybody within a radius of this site and notified them of the message.

MS. MIRELES: He sent out the message.

MR. CASTILLE: Did the message go out over the telephone? Of course, we have some absentee people and people that live there.

MR. PYNES: People update their information on the CT website for the city, and we sent it out TO

everybody in close proximity.

MR. MILLER: You know, we did mail out the notice; and I do know a number of people didn't get it. Some did, and some didn't. You know, it was mailed out on the 22nd. I guess we needed to -- should have mailed it out earlier.

MR. CASTILLE: I passed it out myself. People don't care. It's not hard to figure out.

MR. DAVIS: I'm curious. Obviously these things happen all over the nation, and you kind of go from site to site. I'm assuming that they all generally have the same option of do nothing, go all the way or go somewhere in the middle. I'm curious if you have any statistics on, say, in the last 15 years how many sites there have been, how many took the middle of the road and how many have had maybe three five-year periods and found that it didn't work and we had to go all the way anyway.

MR. MILLER: Carlos is our national -- maybe I shouldn't say this. I don't have any statistics, but maybe he has some.

MR. SANTOS: It varies. I mean, it varies throughout the country; and if this ground water contamination was in a potential drinking water source, we would be pumping it right now. So, it makes a difference on what the environment is and how the plume

is moving. If it was moving and you had residential private wells close by. So, it depends on the situation, not just the contamination you have. It is the environment around the -- the plume and where it's headed. So, this has been done similar to this in other locations, this type of remedy where it is -- if the plume is not expanding or moving and it's considered stable, as this is because it's been there for 30 years and you have a clay layer that is not going to a deeper zone. So, all of those -- and it varies throughout the country.

So, this remedy has been selected at other locations; and some of them, they pump and do NC2, you know, stabilization. I mean, it varies. It varies throughout the country. So, it's hard to compare this situation to something else because even on the other areas that are selected similar to this, it was maybe done for a different reason.

MR. CASTILLE: Can you put two back up there again? Can you flash two back up there again?

MR. PYNES: Based on the contamination by the responsible parties, were there any fines levied for the contamination?

MR. SANTOS: We don't issue fines in the Superfund. The fines are generally issued when the

facilities and operation and they, you know, caused this or are not maintaining --

MR. PYNES: So, if you contaminate and get out of town, you're in good shape.

MS. MIRELES: Yeah.

MR. CASTILLE: I can answer the question.

MR. SANTOS: No, they have -- you know, they clean up the tanks. They are paying for EPA to do all this work. They are paying for all the sampling. They will be paying to monitor the sites. I don't think -- I don't see it as, you know, get out of jail type card. I mean, there is --

MR. PYNES: I was curious because I talked to other industries in our area, a couple of others, that have had strong fines levied by the state monitoring their activities. I was wondering if they have done something wrong or are they being held accountable.

MR. CASTILLE: I can answer your question going back 10 years ago. The DA only fined Hercules I think it was $10,000, to give an example.

MR. PYNES: Okay.

MR. CASTILLE: Couldn't have been, I think, 3 million or something like that. They got off paying 10,000, to give you a little background there. It wasn't their deal. That was the state's deal.

MR. SANTOS: I mean, all situations are different. Here you may have had an operator that, you know, improperly disposed of waste materials. The people that are paying for the clean-up are not the people that are operated or were involved with how the facility operated. There are people that maybe took barges to get cleaned up that they, I assume, thought it was a legitimate business and they had good practices. And so, you know, we have what we call a particular responsible party; but they are not fully liable for how the spill or how the disposal was made at the site. But they're still responsible, and they will clean pay for clean-up.

MR. PYNES: Can you say who that is?

MR. SANTOS: Who the potential responsible party is?

MR. PYNES: Yeah.

MR. SANTOS: We have a list of several of them. Their names are in the order that was sent. There's a -- I don't know right offhand.

MR. MILLER: They were Dow and Harper and Seagulf who is tied to Hercules in some kind of way. Oh, LDL, who is a current owner of most of it. And then, there are also several individuals that own one of those tracts that didn't really have anything to do with.

MR. PYNES: Y'all have a list compiled?

MR. MILLER: Yes, it is the list.

MR. SANTOS: And, you know, it's on the unilateral order, the people that are -- you know, were ordered to clean out the site and that information is available and in the repository.

MR. MILLER: Yes, it is. And I can -- if anybody would like to have it, I can e-mail it to you; and my e-mail and phone number are on some of these handouts. And so, send me an e-mail; and I will be glad.

MS. HOEY: Is it on the website?

MR. SANTOS: I don't think that the unilateral order is on the website.

MR. MOTLEY: I have a question.

MR. SANTOS: Yes, sir.

MR. MOTLEY: Is the property still mainly used by the responsible parties, or is it just open land from this point forward and monitored? Can it be developed with restrictions on it?

MR. SANTOS: It can be developed with the restrictions on it. I mean, as Gary indicated, with certain, you know, precautions. We have restrictions outside of where the plume is also not drilling or putting in wells in some of those areas. So, they're not the same restrictions; but there are restrictions. We

have a property owner out there --

MR. MILLER: That's LDL.

MR. SANTOS: LDL. They still own that property, and they can develop it for commercial or industrial uses. So, there will be -- the owners still own that property.

MR. MOTLEY: Is there any impact if we had a high coastal tide with hurricane or storage surges to worry about that plume heading off the surface area.

MR. SANTOS: We don't think that that would be the case. We had a hurricane that came through.

MR. MILLER: The site was under water several years ago. And, of course, we don't have any information before then; but, you know, we can see what it is after that. And, you know, this is down below ground and when we have tides coming in, it will affect the flow. But that zone is tight. So, it's not going to move very fast. So --

MR. CASTILLE: Gary, let me ask you, the contaminants other than the plume, now what -- give us an update -- a clear update again. We had some ground surface contamination, right?

MR. MILLER: Yeah, there were metals. There were PCBs.

MR. CASTILLE: They're not cleaned up

though?

MR. MILLER: No. They were at low levels; and based on risk assessment, the risk was -- it was low risk. They are there, but the risk was low. So -- and they were scattered. It's not like every sample had them and there were a number of samples that not detected and these hits were just kind of scattered around.

MR. PYNES: If you do Option 2 and do the five-year testing, does the city get follow-up reports on that?

MR. SANTOS: Yes. Yes. And the EPA will be doing the review together with the state and the responsible parties. Again, they will pay for the work and the evaluation that is done and the city is welcome to join.

MR. MILLER: There will be sample records. Right now there's a distribution list that all those documents go to. So, we can certainly add the city on to that.

MR. CASTILLE: I got a question -- go ahead.

MR. SANTOS: We have a repository where we put out all the information that's gathered from the site. And when they're doing the ground water monitoring, that data, we will be putting in the

repository. We have documents on the site available to the public.

MR. CASTILLE: Gary, between Bridge Harbor and the site, there is an existing old marina.

MR. MILLER: Right.

MR. CASTILLE: With the water up in there.

MR. MILLER: Right.

MR. CASTILLE: That area, what kind of investigation -- ground results did you get? I know these people had to experience the flow off the site into that property. Okay? So, I really -- you know, and I watched it for 30 years and I really am surprised that there's not a whole lot more contamination in the water or in the -- you know, the mud below the water line.

MR. MILLER: You know, one of our concerns was like, for instance, the settlement right here on site. Here's the former marina Bob had just mentioned. There were -- these samples over here go from the surface to a depth of about 2 feet, and the purpose of these things was to get to extend. And so, that does that all these over here plus over here. Those are the small low one-inch sample for lead; and those were all low. Now, there is some contamination over here; but again, it's low and scattered.

MR. CASTILLE: We've experienced, you know,

25 years probably since we sealed this deal of contamination airborne primarily. Okay? You know, coming towards the Bridge Harbor Subdivision, the homes over there. And I am really surprised the big area over there, what's left of the big water area, isn't highly, highly contaminated. That really puzzles me.

MR. MILLER: Yeah, those numbers up there are lead concentrations. So, I will just -- like -- let me point to them. Like this one right here, that is -- I apologize. That's not on this one. Anyway, I do recall that all of these samples were all under 20 parts per million.

MR. CASTILLE: We had airborne covering the whole subdivision for years, way before I got there. Going back to what? The Sixties or whatever. That's why I'm really surprised.

MR. MILLER: You know, we did find, there's zinc and there's an aluminum and iron, you know; but as far as the more toxic metals like lead and organic type things, we just didn't find it.

MR. CASTILLE: It was lead paint that was removed from those barges for many years, 40 years, you know.

MR. ARIPSE: I got a question. A lot of this stuff that you're mentioning, the environment, what

are some of the health effects that you would see if you came in contact with this stuff. What can you expect?

MR. MILLER: Well, just in general -- and maybe the state health folks can help. In general, those are carcinogens and some of them are very nasty carcinogens. They used to call them toxic. Now, we call them mind carcinogens. They're not cancerous but other type actions. If they were high enough in concentration, they would be very toxic and very much cancerous.

MR. ARIPSE: A lot of them accumulate. Even though it's just a small amount over time, they will accumulate in the body and reach that peak. A lot of them that you mentioned are like that. What are some of the effects that you see besides cancer?

DR. BRADFORD: Between the different metals and everything you can have a whole slew of different kind of effects. You can give the information about each chemical if you wanted to.

MR. ARIPSE: Just for the residents themselves that are experiencing that stuff.

DR. BRADFORD: It's really hard to say I have this, and it's caused from this. It's not like some kind of surgery. I can do biological testing, but a lot of this has been so long ago, especially the metals, they don't see it.

MR. MILLER: One thing I should say this was done as part of the ecological testing where we were evaluating the impact on the environment. What we did is we got these -- I forget the name, like a small shrimp, and another type of worm. We put those guys in with that settlement and mixed them in. We did 21 days and 28 days and measured their growth and their reproduction and whether they lived or not. And what we found is basically they were exactly the same as they did on the background levels.

And these samples that we picked were areas that had the higher concentrations. It's areas that we were concerned about.

MR. PYNES: The question is: Did you eat the shrimp?

MR. MILLER: And this is all environment. It's not human health. What I'm saying is these guys -- and they did it eat. So -- but no, as far as the human health, these numbers were -- some of them were above are shrimp levels. That's why we went through the risk assessment, based on risk assessment. It was -- for instance, on the soil it was one in a million additional cancers. And our -- the acceptable risk range we use is between one and 10,000 additional cancers and one in a million. So, it was right at the very top end of our --

I should say low end of the acceptable risk rate. So --

MS. MIRELES: Do you know if there's been any allegations over there as far as the cancer or whatever the case may be? Do you know?

MR. CASTILLE: Well, yeah, we had a lot of people dying there of cancer, No. 1. I got a history of 30 years over there. Okay? I have more experience than anybody in the area. Okay. And if you saw the video and the still pictures we had today that we supplied to the EPA, you would be astonished at what the city allowed and the county and the state for 40 years. Finally these people came in and stepped in. Okay. But to see a video -- I mean, daily, day after day of the sandblasting barges that you couldn't -- you know, the house would be full of benzene, styrene, every agent they used for many, many years.

Okay. But going back, we have had people die of cancer in there. They probably didn't realize it was from here. Okay. But it's -- it was one of the worst experiences of my life, you know. Of course, things have settled down. We went through litigation. You know that. Okay? And it was a very trying costly, you know, life experience, which you don't want to go through. Okay? And like I say, we got -- we supplied the EPA with about thousands of pages of

documents that we had to pay for to defend our litigation. I think $50,000 just for, you know, obtaining all the information we could get at the time and I did supply to the EPA. These people came to the house for months on end including Gary to xerox everything we had.

But going back it's one of the worst experience anyone could go through. In fact, they had barges in the intercostal waterway that they would deliberately flush the barges out and all the concentrate and all the debris would go directly into the intercostal waterway. We had thousands of fishes die along Bridge Harbor in there because of that. We had people suited up in their white uniforms while they're discharging the water, extracting the water from the barges. They were all suited up, and here we are 200 feet away with no protection whatsoever. Okay? We would come home late at night after running our business. We would have to leave the house because they were venting barges all night long.

So, not only the ground contamination but the airborne was as bad as you could get for 30 years, just to give you a little background. You know. Chris knows. He's been there for many years. It was a bad deal.

MR. PYNES: The last thing that I will say, and I'll be quiet. I think -- I won't speak out of turn for the Councilwoman Mireles; but from our perspective, there's no acceptable level of risk, whether it's one part per million to one part per 10,000 for the safety of our community for the chance this could be a danger for them. That's my perspective. Why would we risk somebody's health based on somebody else's negligence? There is no acceptable level of risk for your community and our citizens out there. Lots of people live out there and vacation there. So, I just want to say that.

MR. SANTOS: Okay. Thank you. Thank you for your time. We'll provide responses to that. You know, anything else you want to say later in writing or additional comments or, you know, statements, we will take them and consider them and do an official response to them. We gave the response on some things, but we can -- we can give you a more technical or risk based response to some of the concerns that you have. All right. Thank you.

MR. CASTILLE: I'd like to thank the EPA. They finally came in and we're getting somewhere because prior to them, we got nowhere. We'll work with them down the line.

MR. SANTOS: Thank you very much. We'll --

we can stay longer if you have questions.

MR. PYNES: It's been a long day of budget. Again, we appreciate all of you being here and taking the time to be here. And again, thank you for coming and thank you for your questions and concerns.

(Hearing concluded.)

COUNTY OF BRAZORIA)
STATE OF TEXAS)

REPORTER'S CERTIFICATE
EPA PUBLIC MEETING
AUGUST 4, 2011

I, the undersigned Certified Shorthand Reporter in and for the State of Texas, certify that the contents in this transcript of the EPA meeting in the foregoing pages are true and correct.

I further certify that I am neither attorney nor counsel for, nor related to nor employed by any parties to the action in which this meeting is taken and, further, that I am not a relative or employee of any counsel employed by the parties hereto or financially interested in said action.

SUBSCRIBED AND SWORN to under my hand and official seal of office, this the _____ day of August, 2011.

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